

# CMP448 WG11

# Agenda

## # Topics to be discussed

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|------------------------------|----------------|
| 1. Welcome and Agenda        | Chair          |
| 2. Action and Query Logs     | Chair          |
| 3. EDF Renewable Alternative | Kimbrah Hiorns |
| 4. Alternative Vote          | Chair          |
| 5. Consumer Impact Analysis  | Proposer       |
| 6. Legal Text Review         | NESO Legal     |
| 7. Review Workgroup Report   | Chair          |
| 8. Plan for next workgroup   | Chair          |
| a) Legal Text                |                |
| b) Workgroup Report          |                |
| 9. Any Other Business        | Chair          |
| 10. Close                    | Chair          |
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# Action and Query Logs

# Alternative and Alternative Vote – EDF Renewables

# What is the Alternative Request?

**What is an Alternative Request?** The formal starting point for a Workgroup Alternative Modification to be developed which can be raised up until the Workgroup Vote.

**What do I need to include in my Alternative Request form?** The requirements are the same for a Modification Proposal you need to articulate in writing:

- a description (in reasonable but not excessive detail) of the issue or defect which the proposal seeks to address compared to the current proposed solution(s);
- the reasons why you believe that the proposed alternative request would better facilitate the Applicable Objectives compared with the current proposed solution(s) together with background information;
- where possible, an indication of those parts of the Code which would need amending in order to give effect to (and/or would otherwise be affected by) the proposed alternative request and an indication of the impacts of those amendments or effects; and
- where possible, an indication of the impact of the proposed alternative request on relevant computer systems and processes.

**How do Alternative Requests become formal Workgroup Alternative Modifications?** The Workgroup will carry out a Vote on Alternatives Requests. If the majority of the Workgroup members or the Workgroup Chair believe the Alternative Request will better facilitate the Applicable Objectives than the current proposed solution(s), the Workgroup will develop it as a Workgroup Alternative Modification.

**Who develops the legal text for Workgroup Alternative Modifications?** NESO will assist Proposers and Workgroups with the production of draft legal text once a clear solution has been developed to support discussion and understanding of the Workgroup Alternative Modifications.

# Can I vote? And What is the Alternative Vote?

To participate in any votes, Workgroup members need to have attended at least 50% of meetings. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference)

## Stage 1 – Alternative Vote

- Vote on whether Workgroup Alternative Requests should become Workgroup Alternative CUSC Modifications.
- The Alternative vote is carried out to identify the level of Workgroup support there is for any potential alternative options that have been brought forward by either any member of the Workgroup OR an Industry Participant as part of the Workgroup Consultation.
- **Should the majority of the Workgroup OR the Chair believe that the potential alternative solution may better facilitate the CUSC objectives than the Original then the potential alternative will be fully developed by the Workgroup with legal text to form a Workgroup Alternative CUSC modification (WACM)** and submitted to the Panel and Authority alongside the Original solution for the Panel Recommendation vote and the Authority decision.

# Customer Impact Analysis

# There are a range of benefits that the PCF can potentially have for consumers

NESO believes the PCF would incentivise efficient behaviours resulting in a range of potential benefits to consumers. To quantify potential consumer benefits, NESO has conducted analysis focused on direct impacts on developer costs.

Benefit	Description
Developer Savings	Direct impact: Post-PCF activation, developers are likely to spend less time in the queue vs an unhealthy queue pre-PCF activation. This reduces developer costs, which would flow through to consumers.
	Indirect impact: Pre-PCF activation, the introduction of the trigger metric itself could encourage efficient behaviours, such as self selection out of the queue earlier, resulting in developers spending less time in the queue, reducing costs.
Network Operator Savings	PCF activation is likely to incentivise the removal of unviable projects from the queue in a more timely manner, providing a positive impact on consumers that will be realised by the cost savings associated with limiting wasted resources and the inefficient allocation of network capacity.
CO2 Reductions	The intention of the PCF is to expedite average connection dates, low carbon sources of generation should increasingly displace fossil fuel generation sooner, leading to lower CO2 emissions. Consumer net welfare could increase as a result.
Increased Economic Output	A shorter connections queue and earlier connections could enable more generation to connect to the system, facilitating greater economic output.

**Key**

Benefits modelled directly in NESO quantitative analysis



# Why could consumers benefit financially from the PCF?



When the queue is unhealthy, there will be delays to connections timelines



Connection delays lead to higher costs for developers and therefore higher electricity prices for consumers



Activating the PCF when the queue is unhealthy will lead to earlier connection dates and therefore reduced costs for developers



Leading to cheaper electricity prices for consumers<sup>1</sup>

Notes:

1. This is relative to the situation where the queue is unhealthy without the application of the PCF

# What needs to be true for this analysis to show the PCF to have a net benefit on consumers?

DEVEX financing benefits due to PCF activation must outweigh PCF financing costs for there to be a net benefit to the consumer

## Benefits from reduced DEVEX Financing Costs

- The PCF is expected to drive earlier connection dates on average relative to an unhealthy queue, as we would expect fewer or earlier terminations after Gate 2 entry
- This enables projects to spend less time in the queue on average and therefore reduces total DEVEX financing costs on average
- The extent to which DEVEX financing costs would be reduced is driven by two factors:
  1. The average **proportion** of DEVEX that can be spent closer to connection
  2. The average **duration** of time that a proportion of DEVEX can be brought closer to connection



## PCF Financing Costs

- In a sufficiently unhealthy queue, the PCF will be activated and projects pre-M1 will place securities with NESO
- The cost of the PCF to viable projects is financing the PCF security which is required until passing M1
- This cost includes compound interest payments on PCF financing costs until connection
- If the PCF financing costs are less than DEVEX financing savings on average across the queue, then we expect there to be a net benefit for the consumer

# What is the likelihood of a consumer benefit from the PCF?

## Overview

- This analysis evaluates aggregate costs and benefits to the consumer based on the additional generation capacity<sup>1</sup> required until 2030 to meet CP30 targets
- **PCF Financing Costs<sup>2</sup>** are derived from the application of the PCF financing rate to the value of the PCF until a project passes M1<sup>3</sup>. Compound interest payments on PCF financing costs until connection are also considered
- **DEVEX Financing Benefits** are derived from projects spending less time in the queue on average and therefore a proportion of DEVEX being spent closer to connection

## Indicative Benefits to Costs Ratio (Scenario 1)

**Assumptions:** WACCs: c.8–12%<sup>4</sup> (CFI data), PCF Financing Rate: = WACC

Key	Net Consumer Cost	Neutral to Consumers	Net Consumer Benefit
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Benefit Cost Ratio (BCR) = DEVEX Financing Benefits/PCF Financing Costs		No. years connections are earlier versus an unhealthy queue					
		0.5	1	1.5	2	2.5	3
DEVEX spent closer to connection	10.0%	0.2	0.4	0.6	0.8	1.0	1.2
	20.0%	0.4	0.8	1.2	1.6	1.9	2.3
	30.0%	0.6	1.2	1.7	2.3	2.9	3.5
	40.0%	0.8	1.6	2.3	3.1	3.9	4.7
	50.0%	1.0	1.9	2.9	3.9	4.8	5.8
	60.0%	1.2	2.3	3.5	4.7	5.8	7.0
	70.0%	1.4	2.7	4.1	5.4	6.8	8.1
	80.0%	1.6	3.1	4.7	6.2	7.8	9.3
	90.0%	1.7	3.5	5.2	7.0	8.7	10.5
	100.0% <sup>5</sup>	1.9	3.9	5.8	7.8	9.7	11.6

Earlier average connection dates should result in viable projects having less time to finance DEVEX spend, reducing costs

PCF activation will reduce untimely attrition from the queue on average, reducing the time for equivalent projects to join the queue

Notes:

1. Analysis is based on the additional generation capacity requirements for Solar, Onshore Wind, Offshore Wind and Battery at transmission and distribution level until 2030, based on CP30 requirements
2. PCF financing costs remain the same across the range of scenarios presented in the Benefit Cost Ratio
3. The duration that the PCF is applicable to projects has been estimated conservatively based on the application of forwards and backwards calculated milestones by technology
4. Overall WACCs have been derived by technology (Solar, Onshore Wind, Offshore Wind and Battery) from CFI responses; note that the Onshore Wind value is based on best available from a small sample size
5. Higher proportions of total system DEVEX spent closer to connection (inc. 100%) is more likely the less amount of time that DEVEX is spent closer to connection

# Alternative consumer benefit scenarios

In line with previous Workgroup requests, we have outlined a range of scenarios illustrating how consumer benefits may vary dependent on a wide range of PCF financing rates

## Scenario 1

- Assumptions:**
- WACCs: c.8–12% (CFI data)<sup>1</sup>
  - PCF Financing Rate: WACC

Benefit Cost Ratio (BCR)		No. years connections are earlier versus an unhealthy queue					
		0.5	1	1.5	2	2.5	3
DEVEX spent closer to connection	10.0%	0.2	0.4	0.6	0.8	1.0	1.2
	20.0%	0.4	0.8	1.2	1.6	1.9	2.3
	30.0%	0.6	1.2	1.7	2.3	2.9	3.5
	40.0%	0.8	1.6	2.3	3.1	3.9	4.7
	50.0%	1.0	1.9	2.9	3.9	4.8	5.8
	60.0%	1.2	2.3	3.5	4.7	5.8	7.0
	70.0%	1.4	2.7	4.1	5.4	6.8	8.1
	80.0%	1.6	3.1	4.7	6.2	7.8	9.3
	90.0%	1.7	3.5	5.2	7.0	8.7	10.5
	100.0% <sup>4</sup>	1.9	3.9	5.8	7.8	9.7	11.6

## Scenario 2

- Assumptions:**
- WACCs: c.8–12% (CFI data)<sup>1</sup>
  - PCF Financing Rate: 14%<sup>2</sup>

Benefit Cost Ratio (BCR)		No. years connections are earlier versus an unhealthy queue					
		0.5	1	1.5	2	2.5	3
DEVEX spent closer to connection	10.0%	0.1	0.3	0.4	0.5	0.6	0.8
	20.0%	0.3	0.5	0.8	1.0	1.3	1.5
	30.0%	0.4	0.8	1.1	1.5	1.9	2.3
	40.0%	0.5	1.0	1.5	2.0	2.5	3.0
	50.0%	0.6	1.3	1.9	2.5	3.2	3.8
	60.0%	0.8	1.5	2.3	3.0	3.8	4.5
	70.0%	0.9	1.8	2.6	3.5	4.4	5.3
	80.0%	1.0	2.0	3.0	4.0	5.0	6.0
	90.0%	1.1	2.3	3.4	4.5	5.7	6.8
	100.0% <sup>4</sup>	1.3	2.5	3.8	5.0	6.3	7.6

## Scenario 3

- Assumptions:**
- WACCs: c.8–12% (CFI data)<sup>1</sup>
  - PCF Financing Rate: 20%<sup>3</sup>

Benefit Cost Ratio (BCR)		No. years connections are earlier versus an unhealthy queue					
		0.5	1	1.5	2	2.5	3
DEVEX spent closer to connection	10.0%	0.1	0.2	0.3	0.3	0.4	0.5
	20.0%	0.2	0.3	0.5	0.7	0.9	1.0
	30.0%	0.3	0.5	0.8	1.0	1.3	1.5
	40.0%	0.3	0.7	1.0	1.4	1.7	2.1
	50.0%	0.4	0.9	1.3	1.7	2.1	2.6
	60.0%	0.5	1.0	1.5	2.1	2.6	3.1
	70.0%	0.6	1.2	1.8	2.4	3.0	3.6
	80.0%	0.7	1.4	2.1	2.7	3.4	4.1
	90.0%	0.8	1.5	2.3	3.1	3.9	4.6
	100.0% <sup>4</sup>	0.9	1.7	2.6	3.4	4.3	5.1

Key

Heatmap Ratio = DEVEX Financing Benefits/PCF Financing Costs

Net Consumer Cost

Neutral to Consumers

Net Consumer Benefit

Notes:

- WACCs are based on the CFI data and are technology specific.
- To be conservative in benefits estimates, NESO have assumed a rate of 14% for the medium case
- 20% is the rate Workgroup requested as the ‘upper bound’ for the PCF financing rate analysis provided by NESO
- Higher proportions of total system DEVEX spent closer to connection (inc. 100%) is more likely the less amount of time that DEVEX is spent closer to connection

## Overall, we believe the PCF would be net beneficial for consumers

Based on the quantitative analysis and wider benefits, NESO believe it is reasonable to assume consumer benefits from the PCF in the case of an unhealthy queue

Developer Savings

Network Operator Savings

CO2 Reductions

Increased Economic  
Output

# Legal Text Review

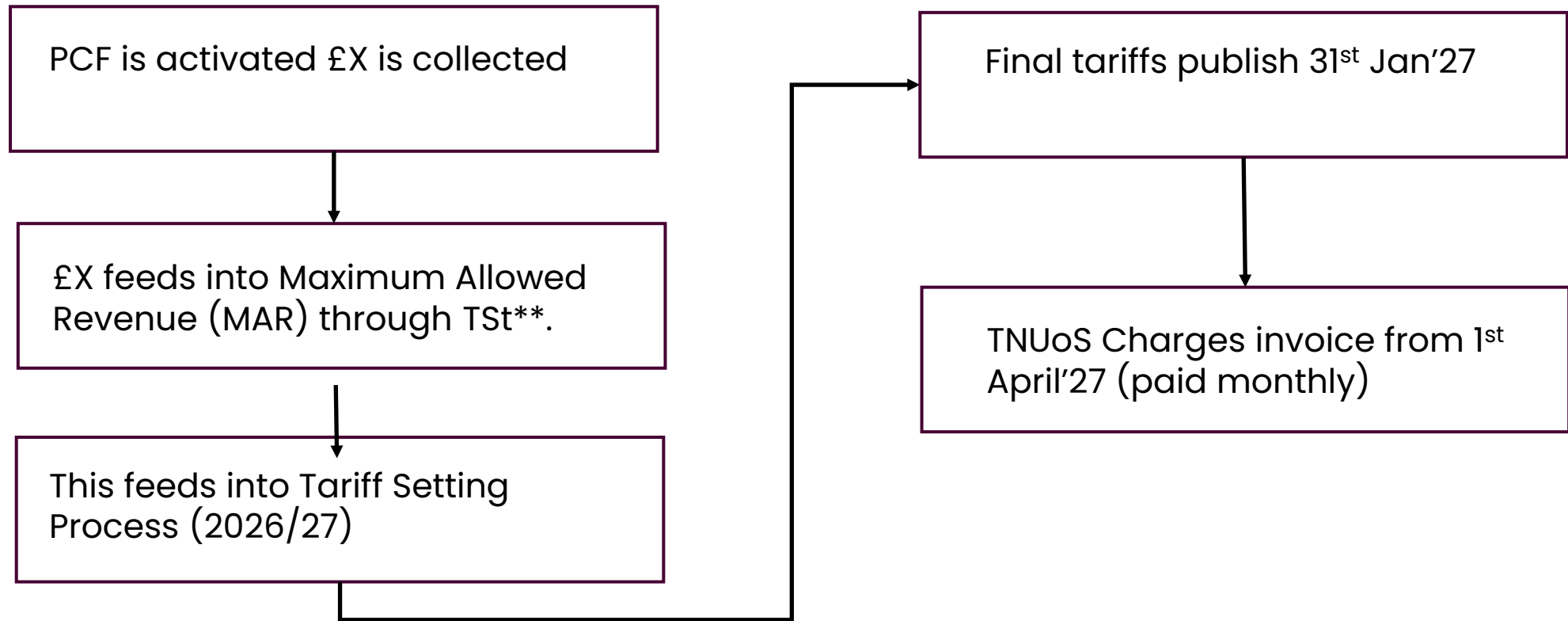
# Workgroup Report Review

# Next Steps and AOB



# Appendix

## Example-Generator terminates in May 26 with PCF of £X



TSt is defined as the difference between Cancellation Charges received from Users and Final Sums paid to the TOs. £X invoiced will be within total Cancellation Charge within the TSt term, and will therefore be passed through to TNUoS charges